

**COMMONWEALTH OF MASSACHUSETTS**

**DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**310 CMR 8.00: THE PREVENTION AND/OR ABATEMENT OF AIR POLLUTION  
EPISODE AND AIR POLLUTION INCIDENT EMERGENCIES**

**310 CMR 8.02 DEFINITIONS**

**310 CMR 8.03 AIR POLLUTION EPISODE CRITERIA**

**8.02: Definitions**

When used in the “Regulation for the Prevention and/or Abatement of Air Pollution Episode and Air Pollution Incident Emergencies” and in communications, notices, or orders relative thereto, the following words and phrases shall have the meanings ascribed below:

- (1) Air Contaminant means any substance or man-made physical phenomenon in the ambient air space and includes, but is not limited to dust, flyash, gas, fume, mist, odor, smoke, vapor, pollen, microorganism, radioactive material, ionizing radiation, heat, sound, any combination thereof, or any decay or reaction product thereof.
- (2) Air Contaminant Source means any place at or from which any air contaminant is emitted to the ambient air space.
- (3) Air Pollution means the presence in the ambient air space of one or more air contaminants or combinations thereof in such concentrations and of such duration as to:
  - (a) cause a nuisance;
  - (b) be injurious to human or animal life, to vegetation, or to property; or
  - (c) unreasonably interfere with the comfortable enjoyment of life and property or the conduct of business.
- (4) Air Pollution Episode means a state of the ambient air environment in which the concentrations of air contaminants are elevated to or are in excess of certain defined levels and that certain meteorological conditions are expected to continue.
- (5) Air Pollution Episode Alert (APEA) means that degree of Air Pollution Episode which meets the criteria for determination of an Air Pollution Episode Alert as set forth in 310 CMR 8.03.
- (6) Air Pollution Episode Emergency (APEE) means that degree of Air Pollution Episode which meets the criteria for determination of an Air Pollution Episode Emergency as set forth in 310 CMR 8.03.

(7) Air Pollution Episode Warning (APEW) means that degree of Air Pollution Episode which meets the criteria for determination of an Air Pollution Episode Warning as set forth in 310 CMR 8.03.

(8) Air Pollution Incident Emergency (APIE) means a condition in the atmosphere in the Commonwealth or any part thereof, which constitutes a present or reasonably imminent danger to health.

(9) Ambient Air Space means unconfined space occupied by the atmosphere above the geographical area of the District.

(10) Atmospheric Stagnation Advisory means an advisory, issued by the National Weather Service, relative to meteorological conditions that are predicted to be manifest for 36 hours or more and to be characterized by poor ventilation and potential increase of ambient air contaminant concentration levels. (The advisories may be prepared for regions of substantial area, or as the need may dictate, for local, relatively small areas.)

(11) COH - Coefficient of Haze means the unit which quantifies the increase in photometric density of a filter tape due to deposition of particles per 1000 linear feet of air through a one inch diameter filter when sampled at the rate of approximately 0.25 cfm.

(12) Commissioner means the Commissioner of the Department of Environmental Protection or his official designees.

(13) Department means the Department of Environmental Protection.

(14) Emission means any discharge or release of an air contaminant to the ambient air space.

(15) Emission Reduction Plan(s) means the plans for reducing emissions during Air Pollution Episode Alerts, Warning, and/or Emergencies.

(16)  $\text{ug/m}^3$  means micrograms per cubic meter.

(17) News Media means certain channels of communication by which information is conveyed between persons; it includes, but is not limited to, radio, television, and newspapers.

(18) p.p.m. means parts per million.

(19) Person means any individual, partnership, association, firm, syndicate, company, trust, corporation, department, authority, bureau, agency, political subdivision of the Commonwealth, law enforcement agency, fire fighting agency, or any other entity recognized by law as the subject of rights and duties.

(20) PM10 or Particulate Matter 10 means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method based on Appendix J of Part 50 of CFR and designated in accordance with Part 53 or by an equivalent method designated in part 53.

#### 8.03: Air Pollution Episode Criteria

(1) Episode Criteria. Conditions justifying the proclamation of air pollution alert, air pollution warning, or air pollution emergency shall be deemed to exist whenever the Department determines that the accumulation of air pollutants in any place is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to a substantial threat to the health of persons. In making this determination, the Department will be guided by the following criteria:

(a) Air Pollution Forecast. An internal watch by the Department shall be actuated by a National Weather Service advisory that Atmospheric Stagnation Advisory is in effect.

(b) Alert. The Alert level is that concentration of pollutants at which first stage control actions is to begin. An Alert will be declared when any one of the levels listed in 310 CMR 8.03(2)(a) is reached at any monitoring site and meteorological conditions are such that the Department is of the opinion that, unless appropriate control actions to reduce emissions are taken, ambient air contaminant concentration levels will remain at or in excess of the above levels for twelve (12) or more hours.

(c) Warning. The warning level indicates that air quality is continuing to deteriorate and that additional control actions are necessary. A warning will be declared when any one of the levels listed in 310 CMR 8.03(2)(b) is reached at any monitoring site and meteorological conditions are such that the Department is of the opinion that, unless appropriate control actions to reduce emissions are taken, ambient air contaminant concentration levels will remain at or in excess of the above levels for twelve (12) or more hours.

(d) Emergency. The emergency level indicates that air quality is continuing to deteriorate toward a level of significant harm to the health of persons and that the most stringent control actions are necessary. An emergency will be declared when any one of the levels listed in 310 CMR 8.03(2)(c) is reached at any monitoring site and meteorological conditions are such that the Department is of the opinion that, unless appropriate control actions to reduce emissions are taken, ambient air contaminant concentration levels will remain at or in excess of the above levels for twelve (12) or more hours.

(e) Termination. Once declared, any status reached by application of these criteria will remain in effect until the criteria for that level are no longer met. At

such time, the next lower status will be assumed, or the episode will be declared over.

(2) Criteria to be used to determine an Air Pollution Episode.

**8.03(2)(a) Criteria for Determination of Air Pollution Episode Alert (APEA)**

CONTAMINANT	Ambient Air Contaminant Concentration Levels				
	Ave. ug/m <sup>3</sup>	ppm	COHs	Duration	Product
Sulfur Dioxide (SO <sub>2</sub> )	800	0.3		24-hr.	
Particulate Matter					
PM10	350			24-hr.	
Tape Stain (CO Hs)			3	24-hr.	
Product of: (SO <sub>2</sub> ) X (CO Hs)		(SO <sub>2</sub> )	(CO Hs)	24-hr.	0.2
Carbon Monoxide	17,000	15		8-hr.	
Ozone (O <sub>3</sub> )	400	0.2		1-hr.	
Nitrogen Dioxide	1,130	0.6		1-hr.	
Nitrogen Dioxide	282	0.15		24-hr.	

Meteorological Conditions are such that the Department is of the opinion that, unless appropriate control actions to reduce emissions are taken, ambient air contaminant levels will remain at or in excess of the above levels for twelve (12) or more hours.

**8.03(2)(b) Criteria for Determination of Air Pollution Episode Warning (APEW)**

CONTAMINANT	Ambient Air Contaminant Concentration Levels				
	Ave. ug/m <sup>3</sup>	ppm	COHs	Duration	Product
Sulfur Dioxide (SO <sub>2</sub> )	1,600	0.6		24-hr.	
Particulate Matter					
PM10	420			24-hr.	
Tape Stain (CO Hs)			5	24-hr.	
Product of: (SO <sub>2</sub> ) X (CO Hs)		(SO <sub>2</sub> )	(CO Hs)	24-hr.	0.8
Carbon Monoxide	34,000	30		8-hr.	
Ozone (O <sub>3</sub> )	800	0.4		1-hr.	
Nitrogen Dioxide	2,260	1.2		1-hr.	
Nitrogen Dioxide	565	0.3		24-hr.	

Meteorological Conditions are such that the Department is of the opinion that, unless appropriate control actions to reduce emissions are taken, ambient air contaminant levels will remain at or in excess of the above levels for twelve (12) or more hours.

**8.03(2)(c) Criteria for Determination of Air Pollution Episode Emergency (APEE)**

CONTAMINANT	Ambient Air Contaminant Concentration Levels				
	Ave. ug/m <sup>3</sup>	ppm	COHs	Duration	Product
Sulfur Dioxide (SO <sub>2</sub> )	2,100	0.8		24-hr.	
Particulate Matter					
PM10	500			24-hr.	
Tape Stain (COHs)		8		24-hr.	
Product of:					
(SO <sub>2</sub> ) X (COHs)		(SO <sub>2</sub> )	(COHs)	24-hr.	1.2
Carbon Monoxide	46,000	40		8-hr.	
Ozone (O <sub>3</sub> )	1,000	0.5		1-hr.	
Nitrogen Dioxide	3,000	1.6		1-hr.	
Nitrogen Dioxide	750	0.4		24-hr.	

Meteorological Conditions are such that the Department is of the opinion that ambient air contaminant levels will remain at or in excess of the above levels for twelve (12) or more hours.